

# Economic Analysis Report



2015



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## Summary

Maryland has an economy that is diverse in industry specialization, occupations, and workers. This diversity, in conjunction with a concentration in public sector employment, somewhat insulated Maryland during the Great Recession, and allowed a faster recovery than the US as whole.

Maryland's labor force has grown steadily over the past ten years, despite an overall decline in labor force participation rate over the same time period.

As the recovery from the Great Recession progresses, there have been less unemployment insurance claims filed in Maryland.

There are several industries in Maryland that are considered to be “growth industries”, industries that are not only growing in the state, but are also more concentrated in Maryland than in other locations. These industries are helping drive economic growth in the state.

While each county has different industry distributions of their labor forces, there are some common threads across the counties. Many counties have a strong Accommodation and food services sector. All counties have growth in at least seven industry sectors over 2014 private employment levels.

As Maryland moves into the future, there are several industries poised for growth over the next decade, based on Long Term Projections data. These industries are led by Educational services, Professional, scientific and technical services, and Ambulatory Health

Maryland has a large number of “Occupations of the future”, occupations that are concentrated in growing industries, have above average wages, and are projected to grow. These occupations are led by Education, training, and library occupations, and Computer and mathematical occupations.

### Highlights

- Large, but shrinking public sector, with healthy and diverse private sector employment.
- Lower than National Unemployment Rate
- Booming Professional and Technical Services subsector
- 25 “Growth Industries”
- Strong industry growth at county level
- Projected growth through 2024 in Educational services, Professional, scientific, and technical services, and Ambulatory health services.
- Occupations driving growth through 2024 include Education, training, and library, and Computer and mathematical.



## Economic Indicators

In 2015, the United States' real Gross Domestic Product (GDP) grew at a rate of 3.5 percent (Bureau of Economic Analysis, 2016). National GDP was most influenced by Real estate and rental and leasing (13.2 percent of 2015 National GDP), Government (12.9 percent), and Manufacturing (12.1 percent) industries (Bureau of Economic Analysis, 2016). From 2014 to 2015 Maryland's GDP grew at a rate of 3.88 percent to a total 2015 output of \$363.8 billion (Bureau of Economic Analysis, 2016). The largest contributing sectors to Maryland GDP were Government at 21 percent of Maryland GDP, Real estate and rental and leasing at 16.5 percent of Maryland GDP, Professional, scientific, and technical services at 9.6 percent of Maryland GDP, and Health care and social assistance at 7.5 percent of Maryland GDP. The fastest growing industry sectors, by percent change from 2014 GDP, are Transportation and Warehousing with a GDP growth of 6.4 percent, Arts, entertainment, recreation, accommodation, and food services with a GDP growth of 6.4 percent, and Retail trade with a GDP growth of 5.6 percent. See Table 1 for more information on Maryland GDP by industry sector.

<b>Maryland GDP (in millions of current dollars) 2015, 2014, and Percent Change</b>			
<b>Industry</b>	<b>2015 GDP</b>	<b>2014 GDP</b>	<b>Change</b>
Agriculture, forestry, fishing, and hunting	\$1,094	\$1,169	-6.4%
Mining	\$258	\$310	-16.8%
Utilities	\$6,743	\$6,648	1.4%
Construction	\$16,933	\$16,064	5.4%
Manufacturing	\$20,251	\$19,569	3.5%
Wholesale trade	\$15,921	\$15,284	4.2%
Retail trade	\$19,653	\$18,610	5.6%
Transportation and warehousing	\$7,434	\$6,990	6.4%
Information	\$14,762	\$14,798	-0.2%
Finance, insurance, real estate, rental, and leasing	\$79,863	\$76,736	4.1%
Professional and business services	\$50,478	\$48,692	3.7%
Educational services, health care, and social assistance	\$32,354	\$30,754	5.2%
Arts, entertainment, recreation, accommodation, and food services	\$13,096	\$12,303	6.4%
Other services, except government	\$8,751	\$8,392	4.3%
Government	\$76,252	\$73,941	3.1%

*Table 1 Maryland GDP over-the-year source: BEA*

While Government is certainly a major contributor to Maryland GDP, an overwhelming majority of production in the State comes from private industry as illustrated in Figure 1.

Nationally, Government makes up 12.9 percent of GDP. Other Maryland industries with a larger than national share of GDP include Real Estate and rental and leasing, Professional, scientific, and technical services, Construction, and Health care and social assistance. While

there are industries with higher than National Concentrations, Maryland's private sector is not overly concentrated in one area, providing a diversified economy and labor market. To see how Industry Shares of GDP compare between Maryland and the US, see Appendix B.

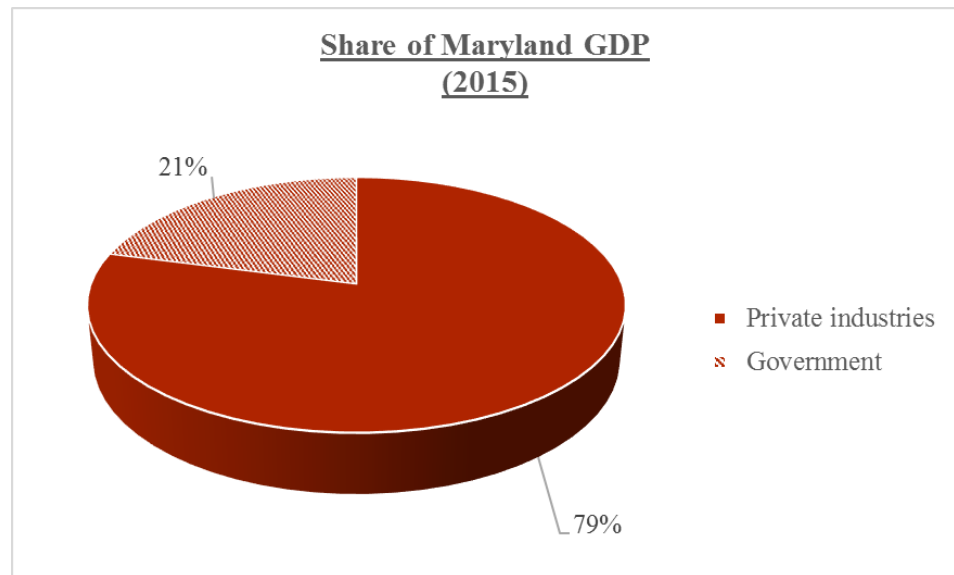


Figure 1 Share of Maryland GDP Source: Bureau of Economic Analysis

## Population and Demographics

In the time period from July 1, 2014 and July 1, 2015, Maryland's population grew by 31,055 people (Maryland Department of Planning, 2015). Twenty-three percent of Maryland's population in 2015 was younger than 18 years of age (US Census Bureau, 2016). Despite a large percentage of the population being under the age of 18, over half of the population was 35 years or older. Maryland's prime working age population (25 – 54) made up 41 percent of the entire population.

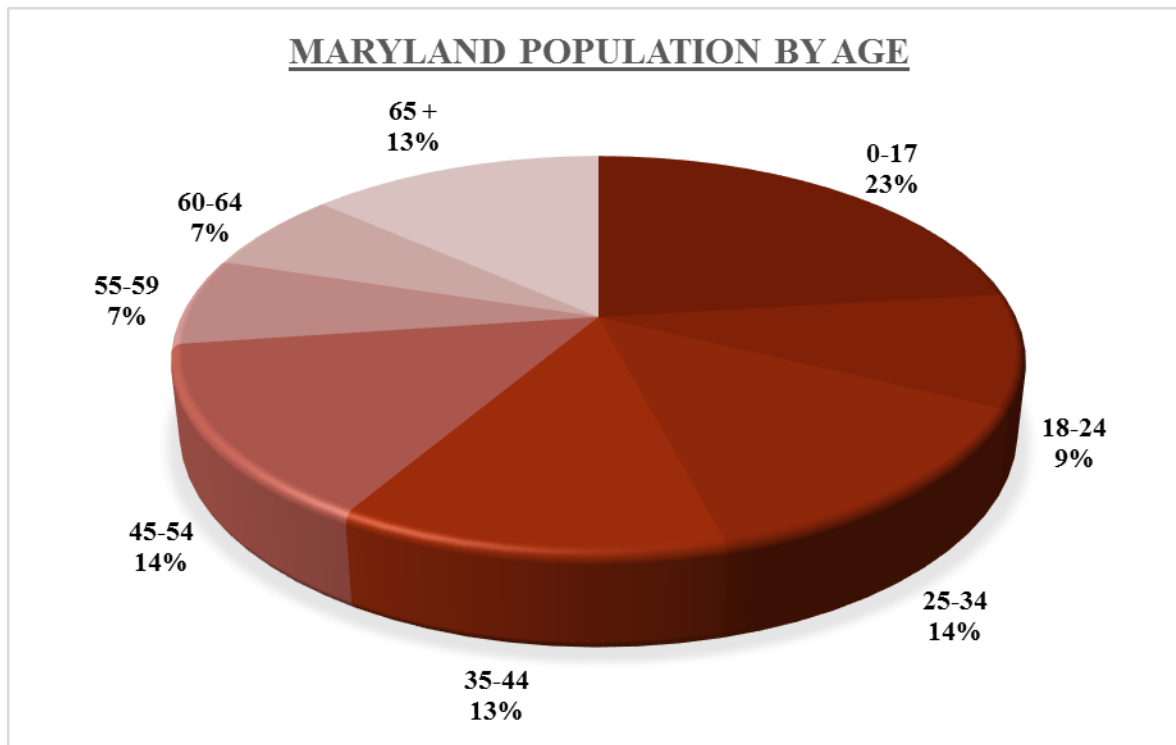


Figure 2 Maryland Population by Age source: US Census

## Maryland's Labor Force

In 2015, the Maryland labor force averaged 3,151,929, with an annual average unemployment rate of 5.2 percent. The number of employed persons averaged 2,988,101<sup>1</sup> (Maryland DLLR, 2016). The labor force grew by 23,633 workers from 2014 to 2015. Figure 3 shows the trend of growth in the Maryland labor force over the past 10 years. The largest gains in labor force from 2014 to 2015 are attributed to Montgomery and Prince George's

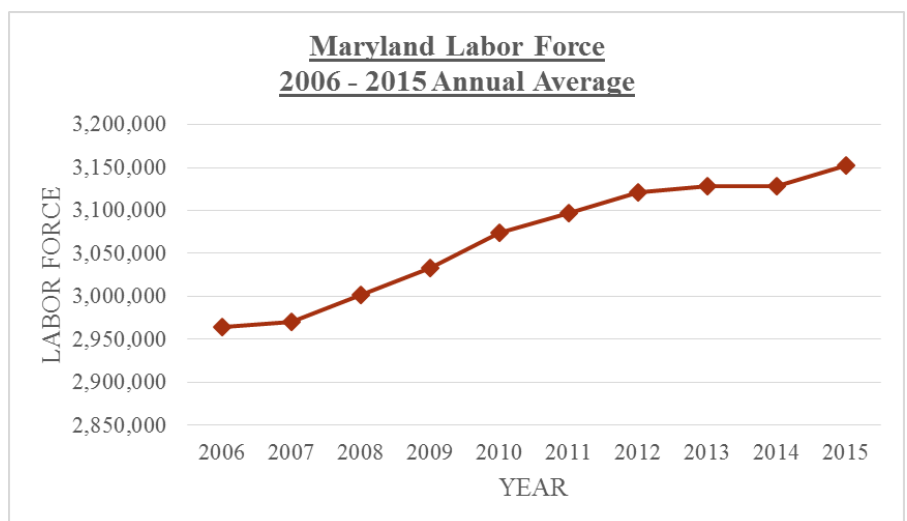


Figure 3 Maryland Labor Force Source: BLS LAUS

<sup>1</sup> LAUS annual data is not seasonally adjusted.



Counties with increases of 4,569 and 4,091 respectively (Maryland DLLR - LAUS, 2016). See Table 2 for complete data on the growth of the Labor Force by county.

<b>Maryland Labor Force by County</b>		
<b>County</b>	<b>2015 Labor Force</b>	<b>2014 - 2015 Change</b>
Allegany County, MD	32,732	-558
Anne Arundel County, MD	300,068	2366
Baltimore city, MD	295,482	1273
Baltimore County, MD	444,854	2947
Calvert County, MD	47,681	425
Caroline County, MD	17,461	36
Carroll County, MD	93,569	920
Cecil County, MD	53,245	769
Charles County, MD	80,945	739
Dorchester County, MD	15,849	52
Frederick County, MD	129,295	1158
Garrett County, MD	15,564	14
Harford County, MD	136,343	984
Howard County, MD	175,167	1641
Kent County, MD	10,625	271
Montgomery County, MD	549,287	4569
Prince George's County, MD	490,697	4091
Queen Anne's County, MD	26,694	307
Somerset County, MD	9,438	156
St. Mary's County, MD	54,498	385
Talbot County, MD	19,244	105
Washington County, MD	76,345	-110
Wicomico County, MD	50,820	735
Worcester County, MD	26,029	363

*Table 2 Maryland Labor Force, Data Source: DLLR LAUS*

In 2015, Maryland's Labor Force Participation rate averaged 66.7 percent.

## Unemployment

The unemployment rate in Maryland has tracked lower than the United States unemployment rate over the past five years (see Figure 4)<sup>2</sup>. Since 2011, the unemployment rates for Maryland and nationally have decreased every year. Maryland's 2011 unemployment rate of 7.2 percent was 1.7 percentage points lower than the National unemployment rate. However, by 2015, the National unemployment rate has caught up to the Maryland unemployment rate, with rates of 5.2 percent for Maryland and 5.3 percent nationally.

<sup>2</sup> Not seasonally adjusted annual average.

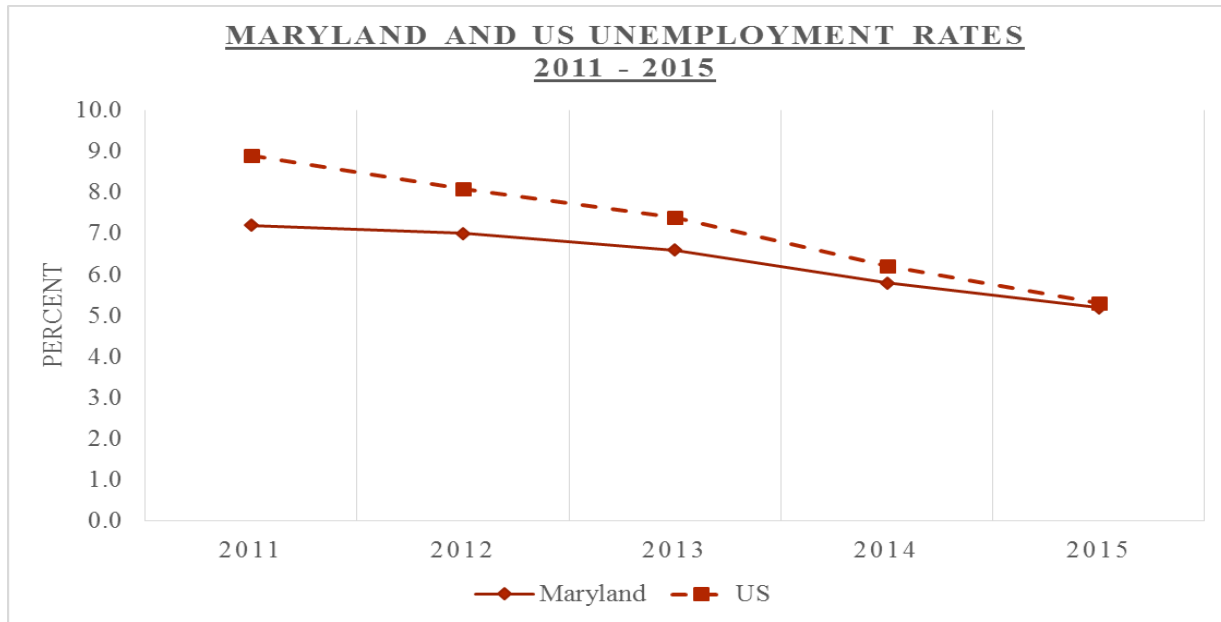


Figure 4 Annual Average Unemployment Rates, Unadjusted: Source BLS LAUS

All Counties in Maryland experienced a decrease in the annual average unemployment rate from 2014 to 2015. Counties with the lowest 2015 annual average unemployment rate were Howard (3.9 percent), Montgomery (4.0 percent), and Carroll (4.3 percent). Somerset, Kent, and Dorchester Counties had the highest over the year unemployment rate change in the State with decreases in the unemployment rate of 1.1 percentage points, 1.0 percentage point, and 1.0 percentage point respectively (BLS LAUS, 2016), see Table 3 for details on all counties.

County	2015 Unemployment Rate (%)	2014 – 2015 Change in Unemployment Rate (pp)
Allegany	7.1	-0.5
Anne Arundel	4.5	-0.6
Baltimore	5.4	-0.7
Calvert	4.6	-0.7
Caroline	5.6	-0.6
Carroll	4.3	-0.5
Cecil	6.0	-0.6
Charles	5.1	-0.6
Dorchester	7.4	-1.0
Frederick	4.5	-0.5
Garrett	6.5	-0.6
Harford	5.0	-0.7
Howard	3.9	-0.4
Kent	5.4	-1.0
Montgomery	4.0	-0.4

County	2015 Unemployment Rate (%)	2014 – 2015 Change in Unemployment Rate (pp)
Prince George's	5.3	-0.7
Queen Anne's	4.6	-0.5
St. Mary's	5.0	-0.4
Somerset	8.3	-1.1
Talbot	5.1	-0.4
Washington	5.8	-0.7
Wicomico	6.8	-0.9
Worcester	10.6	-0.9
Baltimore City	7.7	-0.9

*Table 3 Unemployment Rate by County Source BLS LAUS*

## Total Non-Farm Employment and Growth Industries

### Total Non-Farm Employment

In 2015, annual average Total Nonfarm employment in Maryland was 2,659,300<sup>3</sup>, an increase of 38,400 jobs (1.47 percent growth) over the 2014 annual average (BLS CES , 2016). Four of the five largest growing sectors in Maryland from 2014 to 2015 were Service providing industries: Health Care and Social Assistance, Professional and Business Services, Accommodation and Food Services, and Transportation and Warehousing. Industries that experienced over the year losses were Information, Government, and Utilities. See Figure 5 for details about each sector's growth over-the-year.

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<sup>3</sup> Not seasonally adjusted.

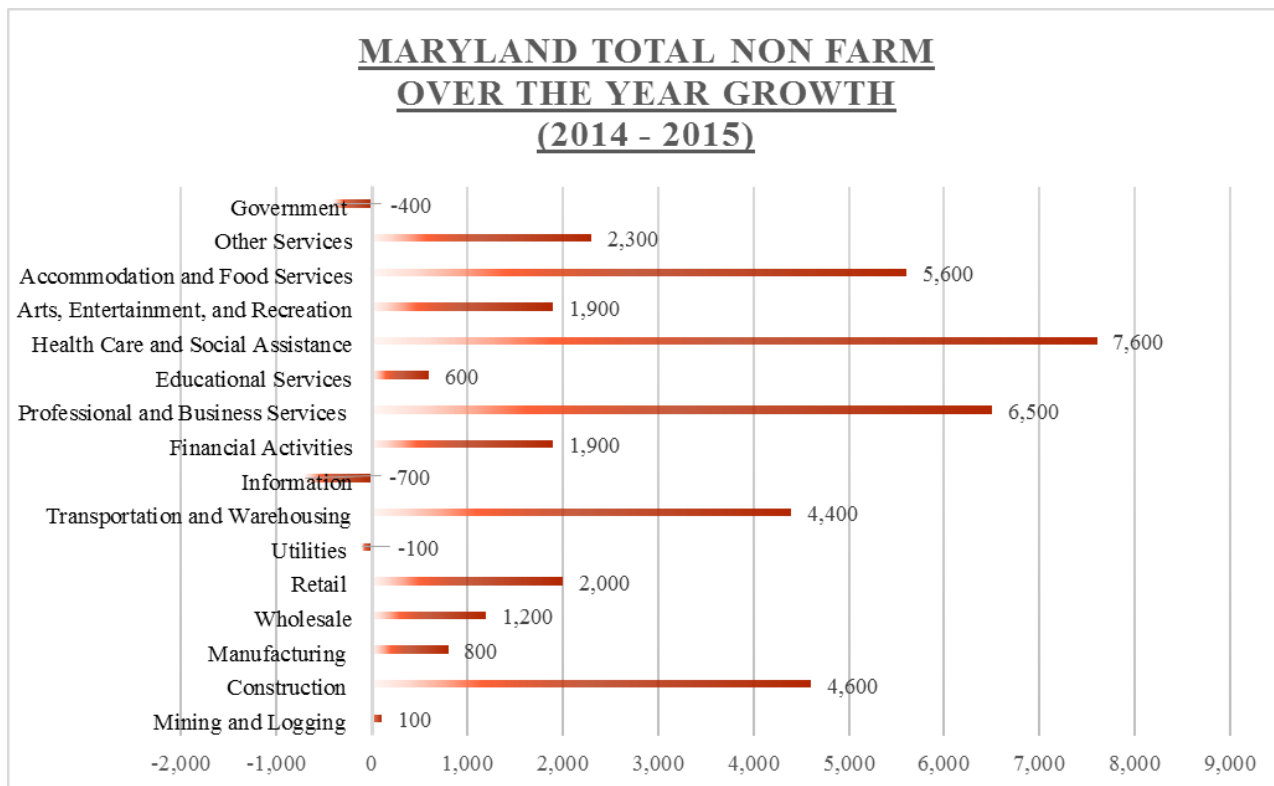


Figure 5 Total Nonfarm Growth by Industry: Source BLS, CES

## Growth Industries

Growth industries are defined as Industries with a positive over-the-year growth rate and a Location Quotient above one. Location Quotient (LQ) measures the concentration of employment in an industry in a specific area compared to a larger area<sup>4</sup>. In Maryland, there were 25 growth industries at the subsector (three digit NAICS<sup>5</sup>) level using 2015 annual averages for private ownership. Some examples of these industries are to follow, see Table 4 for entire list of growth industries.

The Professional and Technical Services subsector was the largest in the group with a 2015 annual average private employment of 28,453. The LQ for this subsector was 1.51, and the over-the-year (OTY) growth was 1 percent (BLS QCEW , 2016).

Funds, Trusts, and Other Financial Vehicles was the most concentrated subsector among Maryland's growth industries with a location quotient of 2.49. This industry subsector also showed strong growth at 11.4 percent over-the-year growth. This fast growth rate, however, is partially attributable to the overall small size of the subsector; the 2015 annual average private employment was 322 (BLS QCEW , 2016).

<sup>4</sup> For more information on Location Quotient, please visit <http://www.bls.gov/help/def/lq.htm>

<sup>5</sup> North American Industry Classification System



The fastest growing subsector in the growth category was Warehousing and storage, a subsector that grew at a rate of 26.4 percent over-the-year. With a 2015 annual average private employment level of 16,122, this also was representative of one of the larger subsectors in the growth category. The LQ indicates this industry subsector is just slightly concentrated in Maryland at 1.05 (BLS QCEW , 2016).

Figure 6 Warehousing and storage grew at a rate of 26.4% OTY

Industry	2015 Employment	LQ	OTY Pct. Change
Professional and technical services	242,108	1.51	1
Ambulatory health care services	132,153	1.04	4.3
Hospitals	103,735	1.16	0.9
Specialty trade contractors	103,048	1.36	1.7
Nursing and residential care facilities	70,267	1.15	0.3
Food and beverage stores	67,450	1.19	1.1
Educational services	63,299	1.26	1.6
Motor vehicle and parts dealers	36,495	1.02	3.2
Amusements, gambling, and recreation	35,762	1.24	3.9
Construction of buildings	33,885	1.28	5.4
Real estate	33,467	1.18	2.8
Personal and laundry services	32,452	1.24	0.6
Repair and maintenance	23,818	1.01	2.4
Building material and garden supply stores	23,579	1.03	1.6
Securities, commodity contracts, investments	17,831	1.06	1.9
Heavy and civil engineering construction	17,418	1.01	8.1
Warehousing and storage	16,112	1.05	26.4
Couriers and messengers	12,870	1.15	3.8
Transit and ground passenger transportation	11,493	1.32	1.7
Rental and leasing services	10,861	1.08	1.1
Furniture and home furnishings stores	10,093	1.16	2.9
Waste management and remediation services	8,571	1.17	0.4
Private households	8,446	1.61	1
Funds, trusts, and other financial vehicles	322	2.49	11.4
Postal service	125	1.07	6.8

Table 4 Maryland Growth Industries

## Local Employment Trends

Industry specialization varies by county. However, there are a number of industries that are prevalent in all localities. Accommodations and food services, Healthcare and social assistance, Construction, Arts, Entertainment, and Recreation, and Transportation and warehousing are the five most recurrent industries in the top ten industry lists by county to follow (BLS QCEW , 2016). The following tables show the ten Industries in each county with the highest change in employment level as compared to 2014<sup>6</sup>. Each table will include the industry name, 2015 employment, change (2014 – 2015), and percent change (2014 – 2015).



*Figure 7 Accommodation and food services is a high employment industry sector in many MD counties*

### Allegany County

Industry	2015 Employment	Change	Percent Change
Health Care and Social Assistance	6,224	276	4.6
Wholesale Trade	571	130	29.5
Arts, Entertainment, and Recreation	336	48	16.5
Real Estate and Rental and Leasing	181	34	22.8
Construction	920	30	3.3
Professional, Scientific, and Technical Services	512	21	4.2
Information	520	16	3.2
Finance and Insurance	771	15	2.0
Agriculture, Forestry, Fishing, and Hunting	3	-3	-54.2
Retail Trade	3,764	-5	-0.1

### Anne Arundel County

Industry	2015 Employment	Change	Percent Change
Administrative and Support and Waste Management and Remediation Services	16,489	1,318	8.7
Transportation and Warehousing	11,231	1,299	13.1
Accommodation and Food Services	27,996	951	3.5
Health Care and Social Assistance	27,859	926	3.4
Retail Trade	32,952	784	2.4
Construction	16,223	648	4.2
Other Services, except Public Administration	9,845	360	3.8
Wholesale Trade	10,550	281	2.7
Educational Services	3,355	133	4.1

<sup>6</sup> Based on private ownership.

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Finance and Insurance	5,862	126	2.2

#### Baltimore County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Administrative and Support and Waste Management and Remediation Services	27,690	2,974	12.0
Construction	23,270	1,121	5.1
Transportation and Warehousing	7,214	1,077	17.5
Accommodation and Food Services	28,710	991	3.6
Finance and Insurance	22,963	421	1.9
Other Services, except Public Administration	11,439	359	3.2
Health Care and Social Assistance	60,651	332	0.5
Wholesale Trade	10,497	249	2.4
Arts, Entertainment, and Recreation	5,800	210	3.7
Real Estate and Rental and Leasing	7,831	202	2.6

#### Calvert County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Construction	2,783	918	49.2
Retail Trade	3,015	166	5.8
Health Care and Social Assistance	3,517	62	1.8
Accommodation and Food Services	2,881	57	2.0
Other Services, except Public Administration	786	56	7.6
Professional, Scientific, and Technical Services	1,037	25	2.5
Educational Services	142	4	3.1
Agriculture, Forestry, Fishing, and Hunting	29	-1	-3.3
Wholesale Trade	414	-3	-0.7
Arts, Entertainment, and Recreation	370	-3	-0.9

#### Caroline County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Information <sup>7</sup>	159	159	N/A
Construction	666	57	9.3
Other Services, except Public Administration	251	41	19.3
Accommodation and Food Services	406	12	2.9
Professional, Scientific, and Technical Services	266	5	1.7
Transportation and Warehousing	877	4	0.4

<sup>7</sup> 2014 data subject to suppression.

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Administrative and Support and Waste Management and Remediation Services	161	1	0.8
Real Estate and Rental And Leasing	32	1	3.2
Agriculture, Forestry, Fishing, and Hunting	432	-2	-0.3
Manufacturing	1,056	-11	-1.0

#### Carroll County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Retail Trade	8,353	324	4.0
Wholesale Trade	2,482	250	11.2
Health Care and Social Assistance	8,612	171	2.0
Professional, Scientific, and Technical Services	2,734	164	6.4
Construction	5,507	119	2.2
Administrative and Support and Waste Management and Remediation Services	3,672	104	2.9
Agriculture, Forestry, Fishing, and Hunting	397	32	8.8
Arts, Entertainment, and Recreation	868	9	1.0
Accommodation and Food Services	5,903	0	0.0
Finance and Insurance	993	-1	-0.1

#### Cecil County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Retail Trade	3,709	93	2.6
Manufacturing	1,416	73	5.4
Other Services, except Public Administration	889	62	7.5
Construction	1,191	39	3.4
Accommodation and Food Services	3,224	39	1.2
Health Care and Social Assistance	3,605	29	0.8
Agriculture, Forestry, Fishing, and Hunting	821	16	1.9
Administrative and Support and Waste Management and Remediation Services	840	14	1.7
Arts, Entertainment, and Recreation	1,036	7	0.7
Transportation and Warehousing	2,043	5	0.3

#### Charles County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Accommodation and Food Services	5,469	399	7.9
Transportation Warehousing	1,528	239	18.5
Construction	3,647	150	4.3



<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Administrative and Support and Waste Management and Remediation Services	1,090	77	7.6
Other Services, except Public Administration	1,513	74	5.2
Retail Trade	8,254	55	0.7
Finance and Insurance	712	44	6.6
Real Estate and Rental and Leasing	446	25	5.9
Utilities	605	25	4.3
Educational Services	339	24	7.5

#### Dorchester County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Manufacturing	1,624	62	4.0
Construction	471	59	14.3
Professional, Scientific, and Technical Services	253	27	11.7
Real Estate and Rental and Leasing	129	25	24.0
Retail Trade	1,085	13	1.2
Finance and Insurance	210	7	3.2
Accommodation and Food Services	1,179	4	0.4
Information	34	-1	-1.5
Arts, Entertainment, and Recreation	139	-2	-1.4
Agriculture, Forestry, Fishing, and Hunting	179	-6	-3.1

#### Frederick County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Administrative and Support and Waste Management and Remediation Services	5,564	715	14.7
Health Care and Social Assistance	11,994	584	5.1
Accommodation and Food Services	9,734	412	4.4
Retail Trade	12,673	354	2.9
Construction	8,951	342	4.0
Other Services, except Public Administration	3,510	229	7.0
Wholesale Trade	2,793	172	6.5
Manufacturing	5,199	143	2.8
Transportation and Warehousing	1,412	119	9.2
Arts, Entertainment, and Recreation	1,673	75	4.7

#### Garrett County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Mining, Quarrying, and Oil and Gas Extraction	389	130	50.2
Health Care and Social Assistance	1,700	84	5.2

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Arts, Entertainment, and Recreation	265	75	39.2
Construction	953	34	3.7
Other Services, except Public Administration	323	25	8.3
Transportation and Warehousing	368	24	7.0
Utilities	29	17	137.5
Agriculture, Forestry, Fishing, and Hunting	70	3	4.9
Manufacturing	1,060	3	0.2
Information	185	2	1.2

#### Harford County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Accommodation and Food Services	8,586	728	9.3
Health Care and Social Assistance	10,540	499	5.0
Manufacturing	4,688	445	10.5
Wholesale Trade	2,607	243	10.3
Arts, Entertainment, and Recreation	1,687	145	9.4
Finance and Insurance	2,323	126	5.7
Other services, except Public Administration	2,863	92	3.3
Information	370	77	266.3
Transportation and Warehousing	4,956	66	1.4
Mining, Quarrying, and Oil and Gas Extraction	80	53	197.2

#### Howard County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Professional, Scientific, and Technical Services	29,883	1,247	4.4
Health Care and Social Assistance	15,421	926	6.4
Management of Companies and Enterprises	3,318	740	28.7
Transportation and Warehousing	4,161	345	9.0
Wholesale Trade	12,839	340	2.7
Retail Trade	16,923	279	1.7
Educational Services	3,094	258	9.1
Administrative and Support and Waste Management and Remediate Services	11,392	258	2.3
Manufacturing	7,680	243	3.3
Finance and Insurance	6,409	199	3.2

#### Kent County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Retail Trade	972	149	18.1
Accommodation and Food Services	814	69	9.3

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Construction	476	35	7.8
Wholesale Trade	273	26	10.6
Real Estate and Rental and Leasing	82	26	46.4
Health Care and Social Assistance	1,248	10	0.8
Manufacturing	417	5	1.1
Professional, Scientific, and Technical Services	244	1	0.2
Administrative and Support and Waste Management and Remediation Services	194	0	0.0
Other Services, except Public Administration	240	-5	-2.0

#### Montgomery County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Health Care and Social Assistance	60,277	1,862	3.2
Professional, Scientific, and Technical Services	62,498	934	1.5
Accommodation and Food Services	34,023	868	2.6
Educational Services	9,748	406	4.3
Real Estate and Rental and Leasing	11,216	367	3.4
Retail Trade	45,838	284	0.6
Manufacturing	11,547	243	2.2
Finance and Insurance	19,446	210	1.1
Arts, Entertainment, and Recreation	7,885	44	0.6
Agriculture, Forestry, Fishing, and Hunting	250	3	1.0

#### Prince George's County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Other Services, except Public Administration	11,204	1,610	16.8
Administrative and Support and Waste Management and Remediation Services	16,916	880	5.5
Retail Trade	39,426	641	1.7
Health Care and Social Assistance	28,998	433	1.5
Construction	25,090	420	1.7
Manufacturing	6,999	371	5.6
Accommodation and Food Service	26,831	249	0.9
Professional, Scientific, and Technical Services	20,302	206	1.0
Educational Services	3,366	169	5.3
Real Estate and Rental and Leasing	5,851	92	1.6

#### Queen Anne's County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Administrative and Support and Waste Management and Remediation Services	585	69	13.8

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Retail Trade	2,669	61	2.3
Wholesale Trade	847	60	7.7
Accommodation and Food Services	2,149	55	2.6
Educational Services	144	43	42.8
Manufacturing	1,067	39	3.8
Real Estate and Rental and Leasing	114	13	12.9
Management of Companies and Enterprises <sup>8</sup>	12	12	N/A
Arts, Entertainment, and Recreation	438	5	1.1
Finance and Insurance	283	3	1.1

#### St. Mary's County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Health Care and Social Assistance	3,915	158	4.2
Accommodation and Food Services	3,410	155	4.8
Retail Trade	4,569	99	2.2
Arts, Entertainment, and Recreation	353	45	14.4
Wholesale Trade	413	29	7.5
Real Estate and Rental and Leasing	319	27	9.1
Transportation and Warehousing	1,762	21	1.2
Administrative and Support and Waste Management and Remediation Services	939	16	1.8
Finance and Insurance	444	11	2.5
Management of Companies and Enterprises	126	6	5.0

#### Somerset County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Other Services, except Public Administration	145	44	43.1
Wholesale Trade	546	39	7.7
Health Care and Social Assistance	1,074	38	3.7
Arts, Entertainment, and Recreation	45	9	24.3
Manufacturing	191	9	4.7
Finance and Insurance	109	6	5.6
Retail Trade	434	5	1.2
Educational Services	12	3	33.3
Accommodation and Food Services	325	2	0.5
Transportation and Warehousing	94	0	0.0

<sup>8</sup> 2014 data subject to suppression

### Talbot County

<b>Industry</b>	<b>2015 Employment</b>	<b>Change</b>	<b>Percent Change</b>
Finance and Insurance	677	111	19.5
Health Care and Social Assistance	3,720	62	1.7
Wholesale Trade	526	49	10.3
Administrative and Support and Waste Management and Remediation Services	1,317	20	1.6
Management of Companies and Enterprises	140	17	13.8
Real Estate and Rental and Leasing	263	16	6.5
Information	113	15	15.3
Agriculture, Forestry, Fishing, and Hunting	72	4	6.3
Transportation and Warehousing	159	3	2.1
Accommodation and Food Services	2,664	-4	-0.1

### Washington County

<b>Industry</b>	<b>2015 Employment</b>	<b>Changes</b>	<b>Percent Change</b>
Administrative and Support and Waste Management and Remediation Services	3,708	311	9.1
Transportation and Warehousing	4,081	210	5.4
Manufacturing	6,324	127	2.0
Wholesale Trade	2,283	101	4.6
Arts, Entertainment, and Recreation	930	94	11.2
Construction	2,812	83	3.0
Accommodation and Food Services	5,534	77	1.4
Health Care and Social Assistance	10,026	33	0.3
Other Services, except Public Administration	1,605	30	1.9
Educational Services	464	30	6.9

### Wicomico County

<b>Industry</b>	<b>2015 Employment</b>	<b>Changes</b>	<b>Percent Change</b>
Health Care and Social Assistance	8,532	423	5.2
Accommodation and Food Services	4,190	198	4.9
Finance and Insurance	1,209	165	15.8
Other Services, except Public Administration	1,610	97	6.4
Management of Companies and Enterprises	857	87	11.3
Transportation and Warehousing	1,189	82	7.4
Construction	1,926	68	3.7
Utilities	586	30	5.4
Professional, Scientific, and Technical Services	1,360	22	1.6
Educational Services	366	5	1.4

## Worcester County

Industry	2015 Employment	Change	Percent Change
Accommodation and Food Services	8,007	558	7.5
Construction	1,096	90	8.9
Arts, Entertainment, and Recreation	1,108	51	4.8
Finance and Insurance	488	47	10.7
Agriculture, Forestry, Fishing, and Hunting	68	16	30.8
Educational Services	206	8	4.2
Mining, Quarrying, Gas and Oil Extraction	19	7	60.4
Professional, Scientific, and Technical Services	658	6	0.9
Information	157	4	2.8
Transportation and Warehousing	194	-5	-2.3

## Baltimore City

Industry	2015 Employment	Change	Percent Change
Transportation and Warehousing	14,622	2,805	23.7
Health Care and Social Assistance	74,633	1,470	2.0
Arts, Entertainment, and Recreation	6,800	1,058	18.4
Information	4,165	623	17.6
Professional, Scientific, and Technical Services	19,820	379	1.9
Construction	10,333	316	3.2
Accommodation and Food Services	22,928	181	0.8
Real Estate and Rental and Leasing	5,030	162	3.3
Management of Companies and Enterprises	2,212	61	2.8
Agriculture, Forestry, Fishing, and Hunting <sup>9</sup>	5	5	N/A

## Industry Projections

Looking toward 2024, Maryland has multiple industries poised to grow over the next ten years. Nine of the top ten industries by projected growth are service providing industries, only one, Specialty trade contractors, is a goods producing industry. Overall, goods producing industries, to include manufacturing, mining, and construction, are projected to decline at a rate of 2.6 percent through 2024. Service providing industries are expected to drive growth through 2024, with a projected total growth of 39,910 jobs.

Educational services, one of Maryland's largest industries by estimated employment, is projected to add the most total jobs with a projected growth of 139,427, representing a 2.7 percent annual growth rate through 2024. Of the top ten industries by total growth, Management of companies and enterprises is projected to have the highest average annual growth rate at 6.9 percent per year through 2024. This represents a projected gain of 17,553 jobs through 2024. The largest average annual growth rate for an industry with an estimated current employment greater than 250

<sup>9</sup> 2014 data subject to suppression

employees, Support activities for mining is projected to grow by an average of 19.5 percent per year through 2024, representing a total growth of 1,162 jobs through 2024.

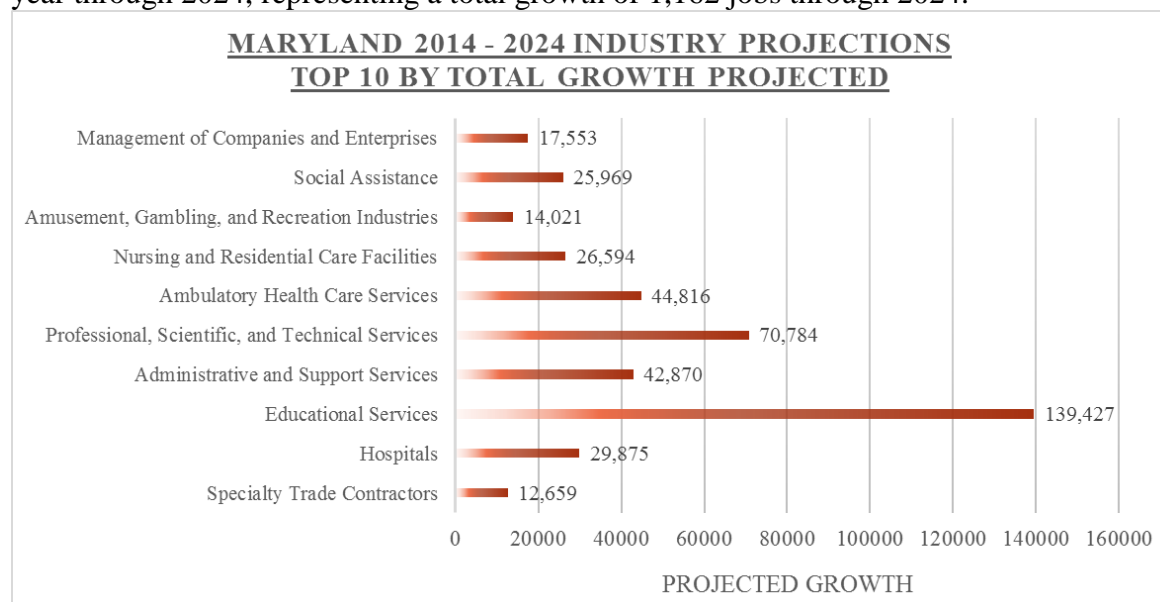


Figure 8 Industry Projections, sorted by percent growth. Source: MD DLLR Projections

## Occupations of the future

Occupations that are projected to grow in the next ten years, have higher than state average wages, and are concentrated in industries with positive projected growth over the next are highlighted as occupations of the future. Occupations<sup>10</sup> were identified by analyzing occupational projections, industry projections, and staffing patterns. For the entire list of occupations of the future, see Appendix C.



### Registered nurses

Registered nurses is the occupation of the future in Maryland with the most projected annual growth openings through 2024 with 1,640 openings projected due to occupational growth. Nurses earn a mean wage of \$73,198, well above the statewide average of \$54,630. The staffing patterns show that almost all of the current registered nursing positions are in industries poised to grow through 2024. The top three industries where registered nurses currently work are hospitals, ambulatory care facilities, and nursing and residential care facilities.

### Elementary school teachers, except special education

Elementary school teachers, except special education project to add 1,452 new positions per year through 2024. While the position is mostly concentrated in the Educational services sector, there

<sup>10</sup> For more information and occupation descriptions, please visit [www.onetonline.org](http://www.onetonline.org)



are also positions in the nursing and residential care, and social assistance industries. All three industries are projected to grow through 2024. Wages for these teachers have a mean of \$63,750.

### **Secondary school teachers, except special and career/technical education**

Through 2024, Secondary school teachers, except special and career/technical education is projected to grow by 832 positions per year. These positions are much more concentrated in the Educational services sector than Elementary school teachers, except special education, with staffing patterns indicating nearly 100 percent employment in this industry. Secondary school teachers, except special and career/technical education earn an average salary of \$66,085.

### **Middle school teachers, except special and career/technical education**

Middle school teachers, except special and career/technical education will add nearly as many jobs as Secondary school teachers, except special and career/technical education with 814 job openings per year projected from occupational growth. Again, this occupation is highly concentrated in the educational services industry, with few positions in the social assistance industry.



*Figure 9 Education will be a major contributor to occupational growth, accounting for nearly 25% of projected growth in occupations of the future in Maryland through 2024.*

### **General and Operations Managers**

General and operations managers are among the highest paid of the occupations of the future. The mean wage of \$131,069 is more than double the statewide average wage. There are a projected 877 annual growth openings for this occupation through 2024. A wide variety of industries spanning all sectors employ General and Operations managers, 57 of which are projected to grow through 2024.

### **First-line supervisors of office and administrative support workers**

First-line supervisors of office and administrative support workers earn a mean wage of \$59,434 while typically requiring a high school diploma in contrast to the requirement for post-secondary education in many high paying positions. There are a projected 651 annual growth openings in this occupation through 2024. Staffing patterns show opportunities available across all sectors with 55 industries projected to grow through 2024.





## Accountants and auditors

Accountants and auditors have opportunities across all sectors, including 53 industries projected to grow through 2024. Based on staffing patterns, the Professional, scientific and technical services industry currently employs approximately 10,741 Accountants and auditors. There are a projected 628 annual growth openings in this occupation through 2024. The mean

earnings for Accountants and auditors is \$80,575.

## Sales representatives, services, all other

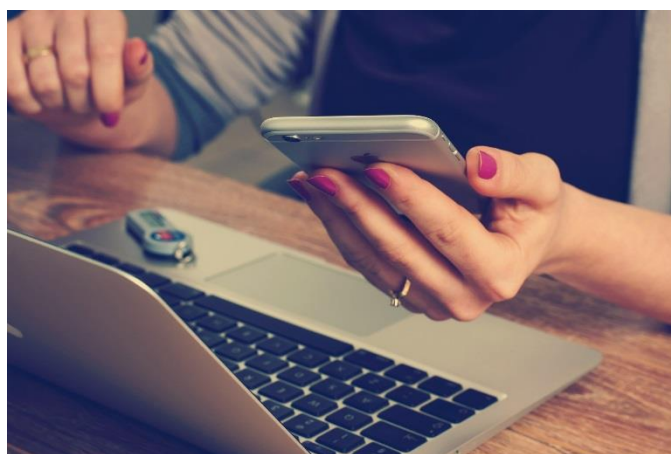
Sales representatives, services, all other include positions such as Business services sales representatives, Membership solicitors, and Pest control service sales agents (Office of Management and Budget, 2010, p. 114). This occupation is another where workers with a high school diploma have the potential to earn wages above the state average wage of \$54,630; Sales representatives, services, all other earn a mean wage of \$66,259. There are a projected 479 annual growth openings through 2024. Staffing patterns show opportunities across all sectors, including 55 industries projected to grow through 2024.

## Computer systems analysts

Computer systems analysts will account for 577 projected annual growth openings through 2024. This occupation earns an average wage of \$91,263. Based on staffing patterns, the majority of computer systems analysts currently work in the Professional and technical services, Administrative and support services, and Educational services industries, all three of which are projected to grow through 2024. There are 39 total industries employing Computer systems analysts that are projected to grow through 2024.

## Software developers, systems software and Software developers, applications

Software developers, systems software and Software developers are projected to add a combined 1,042 projected annual growth openings through 2024. While both occupations earn close to double the state average wage, Software developers, systems software earn slightly more than their applications counterparts, earning \$118,955 for systems software and \$108,187 for applications.



*Figure 10 Computer and mathematical occupations (SOC 15-0000) will factor largely into Maryland's growth through 2024, accounting for 15% of projected growth in occupations of the future.*

## Conclusion

Based on the demographics of the State, the large projected increases in education and healthcare are fitting with large pluralities of the population either currently under 18, or turning 55 or older in the next 10 years.

As Maryland's economy becomes more services and technologically oriented, job seekers in the future will tend to need more skills and or education to compete in the job market. Based on the analysis of staffing patterns, there will be opportunities in all industry sectors for occupations that require specified skills, education, or certification, such as computer and mathematical and management occupations. However, based on projections, job seekers will find more opportunities in service providing industry sectors over the next ten years.

The trend of growth in service providing industry sectors also can be seen at the county level, where in all counties, a majority of the top ten growing industry sectors were service providing. However, this does not mean that goods producing sectors are in decline, as 22 counties also had in the top ten growing sectors at least one goods producing sector, typically construction. Manufacturing was also a top ten growing sector in 13 of Maryland's counties. Counties with a strong manufacturing sector vary in size and demographic makeup from metropolitan population centers such as Prince George's and Montgomery Counties to more rural counties on the Eastern Shore and in Western Maryland.

## References

- BLS CES . (2016, July 19). *Series ID: SMU2400000000000001*. Retrieved from data.bls.gov
- BLS LAUS. (2016, July 28). Retrieved from data.bls.gov
- BLS QCEW . (2016).
- Bureau of Economic Analysis. (2016).
- Bureau of Economic Analysis. (2016).
- Bureau of Labor Statistics - QCEW. (2016, July 19). *Quarterly Census of Employment and Wages*. Retrieved from [http://data.bls.gov/cew/apps/table\\_maker/v4/table\\_maker.htm#type=18&from=2014&to=2015&qtr=1&own=0&ind=10&area=24000&supp=1](http://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=18&from=2014&to=2015&qtr=1&own=0&ind=10&area=24000&supp=1)
- Maryland Department of Planning. (2014, July). *Population and Households (7/14) Population Projections*. Retrieved from <http://planning.maryland.gov/msdc/projection/projectionsByTopic.shtml>
- Maryland Department of Planning. (2015, December 22). *Maryland's Population Growth Continues to Slow in 2015*. Retrieved from [http://planning.maryland.gov/msdc/Pop\\_estimate/Estimate\\_15/Population%20Growth%20Slows%20for%20Maryland%20in%202015.pdf](http://planning.maryland.gov/msdc/Pop_estimate/Estimate_15/Population%20Growth%20Slows%20for%20Maryland%20in%202015.pdf)
- Maryland DLLR - LAUS. (2016, July 19). *Counties - Annual Local Area Unemployment Statistics (LAUS) - Workforce Information & Performance*. Retrieved from <http://www.dllr.state.md.us/lmi/laus/lauscountiesann.shtml>
- Maryland DLLR. (2016, July 19). *Annual Local Area Unemployment Statistics (LAUS) - Workforce Information & Performance*. Retrieved from <http://www.dllr.state.md.us/lmi/laus/lausann.shtml>
- Office of Management and Budget. (2010). *Standard Occupational Classification Manual*. Alexandria: Executive Office of the President, Office of Management and Budget.

## Other helpful resources

Maryland Growth Occupation Tool (GOT) and Growth Industry Tool (GIT):  
<http://www.dllr.state.md.us/lmi/wiagrowthind/>

Maryland LMI Homepage  
<http://www.dllr.state.md.us/lmi/>

Maryland Workforce Exchange  
<https://mwejobs.maryland.gov/vosnet/Default.aspx>

North American Industry Classification System (NAICS)  
[http://www.bls.gov/iag/tgs/iag\\_index\\_naics.htm](http://www.bls.gov/iag/tgs/iag_index_naics.htm)

O\*NET (Standard Occupational Classifications (SOC))  
<http://www.onetonline.org/>

## Appendix A – QCEW Crosswalk

2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
Agriculture, forestry, fishing and hunting	↑ 0.0	Crop production	↑ 2.0	Oilseed and grain farming	↓ -1.7
				Vegetable and melon farming	↑ 8.7
				Fruit and tree nut farming	↓ -6.1
				Greenhouse and nursery production	↑ 4.0
				Other crop farming	↓ -16.7
		Animal production and aquaculture	↓ -9.1	Cattle ranching and farming	↓ -8.1
				Poultry and egg production	↓ -12.0
				Other animal production	↓ -9.8
		Forestry and logging	↑ 0.6	Logging	↑ 2.0
		Fishing, hunting and trapping	↑ 6.9	Fishing	↑ 10.2
				Hunting and trapping	↑ 4.3
		Agriculture and forestry support activities	↑ 6.1	Support activities for crop production	↑ 9.0
				Support activities for animal production	↑ 4.9
				Support activities for forestry	↓ -7.7
Mining, quarrying, and oil and gas extraction	↑ 3	Mining, except oil and gas	↑ 1.5	Coal mining	↑ 1.1
Utilities	↓ -1.7	Utilities	↓ -1.7	Nonmetallic mineral mining and quarrying	↑ 1.9
				Power generation and supply	↓ -2.0
				Natural gas distribution	↑ 3.8
Construction	↑ 3.2	Construction of buildings	↑ 5.4	Water, sewage and other systems	↓ -0.6
				Residential building construction	↑ 4.2
				Nonresidential building construction	↑ 6.9
				Utility system construction	↑ 13.4
				Land subdivision	↑ 13.6
		Heavy and civil engineering construction	↑ 8.1	Highway, street, and bridge construction	↑ 2.0
				Other heavy construction	↑ 0.6
				Building foundation and exterior contractors	↑ 1.1
				Building equipment contractors	↑ 2.2
				Building finishing contractors	↑ 0.8
		Specialty trade contractors	↑ 1.7	Other specialty trade contractors	↑ 2.3
				Animal food manufacturing	↑ 0.0
				Grain and oilseed milling	↓ -12.6
				Sugar and confectionery product manufacturing	↓ -2.1
				Fruit and vegetable preserving and specialty	↓ -1.6
		Food manufacturing	↑ 1.0	Dairy product manufacturing	↓ -3.0
				Animal slaughtering and processing	↑ 7.3
				Seafood product preparation and packaging	↑ 5.6
				Bakeries and tortilla manufacturing	↑ 6.3
				Other food manufacturing	↓ -6.3
		Beverage and tobacco product manufacturing	↑ 0.0	Beverage manufacturing	↑ 0.0
				Tobacco manufacturing	↑ 0.0
		Textile mills	↓ -5.5	Fabric mills	↓ -2.6
		Textile product mills	↑ 2.3	Textile furnishings mills	↑ 5.3
				Other textile product mills	↑ 1.2
				Cut and sew apparel manufacturing	↓ -12.7



2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
		Apparel manufacturing	↓ -12.2	Accessories and other apparel manufacturing	↑ 4.9
		Leather and allied product manufacturing	↑ 0.0	Footwear manufacturing	↑ 5.8
				Other leather product manufacturing	↓ -10.8
		Wood product manufacturing	↑ 2.3	Sawmills and wood preservation	↓ -2.9
				Plywood and engineered wood product mfg.	↑ 8.9
				Other wood product manufacturing	↑ 0.9
		Paper manufacturing	↓ -0.1	Pulp, paper, and paperboard mills	↑ 1.0
		Printing and related support activities	↓ -2.7	Converted paper product manufacturing	↓ -0.6
		Petroleum and coal products manufacturing	↓ -0.7	Printing and related support activities	↓ -2.7
		Chemical manufacturing	↓ -0.8	Petroleum and coal products manufacturing	↓ -0.7
				Basic chemical manufacturing	↓ -22.2
				Resin, rubber, and artificial fibers mfg.	↑ 10.0
				Agricultural chemical manufacturing	↑ 38.9
				Pharmaceutical and medicine manufacturing	↑ 4.4
				Paint, coating, and adhesive manufacturing	↑ 1.3
				Soap, cleaning compound, and toiletry mfg.	↓ -17.1
				Other chemical product and preparation mfg.	↓ -5.0
		Plastics and rubber products manufacturing	↓ -2.1	Plastics product manufacturing	↓ -1.6
		Nonmetallic mineral product manufacturing	↑ 6.8	Rubber product manufacturing	↓ -13.8
				Clay product and refractory manufacturing	↓ -4.8
				Cement and concrete product manufacturing	↑ 8.4
		Primary metal manufacturing	↑ 18.5	Other nonmetallic mineral products	↑ 17.8
				Iron and steel mills and ferroalloy mfg.	↑ 182.4
				Steel product mfg. from purchased steel	↓ -10.6
		Fabricated metal product manufacturing	↓ -0.2	Foundries	↑ 3.4
				Forging and stamping	↓ -9.7
				Cutlery and handtool manufacturing	↓ -33.3
				Architectural and structural metals mfg.	↑ 5.6
				Boiler, tank, and shipping container mfg.	↑ 2.9
				Hardware manufacturing	↓ -5.3
				Spring and wire product manufacturing	↓ -4.0
				Machine shops and threaded product mfg.	↓ -2.8
		Machinery manufacturing	↑ 2.2	Coating, engraving, and heat treating metals	↓ -14.5
				Other fabricated metal product manufacturing	↓ -0.3
				Ag., construction, and mining machinery mfg.	↑ 10.6
				Industrial machinery manufacturing	↑ 0.8
				Hvac and commercial refrigeration equipment	↑ 4.2
		Computer and electronic product manufacturing	↓ -0.2	Metalworking machinery manufacturing	↓ -8.2
				Other general purpose machinery manufacturing	↓ -1.1
				Computer and peripheral equipment mfg.	↑ 14.6
				Communications equipment manufacturing	↓ -1.2
				Semiconductor and electronic component mfg.	↓ -1.4
				Electronic instrument manufacturing	↓ -1.4
				Electric lighting equipment manufacturing	↑ 1.6

2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
Manufacturing	↑ 0.3	Electrical equipment and appliance mfg.	↑ 16.4	Household appliance manufacturing	↓ -2.4
				Electrical equipment manufacturing	↑ 3.7
				Other electrical equipment and component mfg.	↑ 47.4
		Transportation equipment manufacturing	↓ -3.9	Motor vehicle body and trailer manufacturing	↑ 0.0
				Motor vehicle parts manufacturing	↓ -0.6
				Aerospace product and parts manufacturing	↓ -6.8
				Ship and boat building	↑ 1.8
		Furniture and related product manufacturing	↑ 4.9	Household and institutional furniture mfg.	↑ 0.1
				Office furniture and fixtures manufacturing	↑ 17.6
				Other furniture related product manufacturing	↑ 1.2
		Miscellaneous manufacturing	↑ 0.0	Medical equipment and supplies manufacturing	↑ 2.0
				Other miscellaneous manufacturing	↓ -1.4
Wholesale trade	↑ 1.2	Merchant wholesalers, durable goods	↑ 0.2	Motor vehicle and parts merchant wholesalers	↓ -0.8
				Furniture and furnishing merchant wholesalers	↑ 2.0
				Lumber and const. supply merchant wholesalers	↑ 3.0
				Commercial equip. merchant wholesalers	↑ 0.8
				Metal and mineral merchant wholesalers	↓ -5.0
				Electric goods merchant wholesalers	↓ -0.8
				Hardware and plumbing merchant wholesalers	↑ 2.6
				Machinery and supply merchant wholesalers	↑ 0.7
				Misc. durable goods merchant wholesalers	↓ -4.1
				Paper and paper product merchant wholesalers	↑ 3.0
		Merchant wholesalers, nondurable goods	↑ 1.9	Druggists' goods merchant wholesalers	↑ 2.3
				Apparel and piece goods merchant wholesalers	↑ 36.8
				Grocery and related product wholesalers	↑ 0.6
				Farm product raw material merch. whls.	↑ 1.7
				Chemical merchant wholesalers	↓ -6.0
				Petroleum merchant wholesalers	↑ 5.9
				Alcoholic beverage merchant wholesalers	↑ 1.3
				Misc. nondurable goods merchant wholesalers	↑ 3.4
				Electronic markets and agents and brokers	↑ 2.6
				Electronic markets and agents and brokers	↑ 2.6
		Motor vehicle and parts dealers	↑ 3.2	Automobile dealers	↑ 3.7
				Other motor vehicle dealers	↓ -2.5
				Auto parts, accessories, and tire stores	↑ 3.3
		Furniture and home furnishings stores	↑ 2.9	Furniture stores	↑ 4.9
				Home furnishings stores	↑ 1.1
		Electronics and appliance stores	↑ 4.1	Electronics and appliance stores	↑ 4.1
				Building material and supplies dealers	↑ 0.3
		Building material and garden supply stores	↑ 1.6	Lawn and garden equipment and supplies stores	↑ 10.6
				Grocery stores	↑ 1.5
		Food and beverage stores	↑ 1.1	Specialty food stores	↓ -4.8
				Beer, wine, and liquor stores	↑ 1.6
		Health and personal care stores	↑ 1.4	Health and personal care stores	↑ 1.4
				Gasoline stations	↑ 2.1
		Gasoline stations	↓ 2.1	Gasoline stations	↑ 2.1



2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
Retail trade	↑ 0.9	Clothing and clothing accessories stores	↓ -2.1	Clothing stores	↓ -3.4
				Shoe stores	↑ 0.9
		Sporting goods, hobby, book and music stores	↑ 3.0	Jewelry, luggage, and leather goods stores	↑ 1.9
				Sporting goods and musical instrument stores	↑ 1.7
		General merchandise stores	↓ -0.9	Book, periodical, and music stores	↑ 10.2
				Department stores	↓ -1.5
		Miscellaneous store retailers	↓ -2.4	Other general merchandise stores	↑ 0.2
				Florists	↓ -0.5
				Office supplies, stationery, and gift stores	↓ -6.9
				Used merchandise stores	↓ -0.4
				Other miscellaneous store retailers	↑ 0.9
				Electronic shopping and mail-order houses	↑ 9.2
				Vending machine operators	↓ -3.8
		Nonstore retailers	↑ 4.1	Direct selling establishments	↑ 2.2
Transportation and warehousing	↑ 8.1	Air transportation	↑ 9.7	Scheduled air transportation	↑ 9.6
				Nonscheduled air transportation	↑ 14.8
		Water transportation	↑ 5.5	Sea, coastal, and great lakes transportation	↑ 1.5
				Inland water transportation	↑ 6.1
		Truck transportation	↑ 4.3	General freight trucking	↑ 4.3
				Specialized freight trucking	↑ 4.3
		Transit and ground passenger transportation	↑ 1.7	Urban transit systems	↑ 8.8
				Interurban and rural bus transportation	↓ -13.7
				Taxi and limousine service	↑ 5.6
				School and employee bus transportation	↑ 2.1
				Charter bus industry	↑ 5.0
				Other ground passenger transportation	↓ -2.6
				Scenic and sightseeing transportation, water	↓ -0.3
		Support activities for transportation	↑ 3.7	Support activities for air transportation	↓ -0.7
				Support activities for rail transportation	↓ -15.3
				Support activities for water transportation	↑ 6.4
				Support activities for road transportation	↓ -1.0
				Freight transportation arrangement	↑ 6.0
				Other support activities for transportation	↑ 79.2
		Postal service	↑ 6.8	Postal service	↑ 6.8
		Couriers and messengers	↑ 3.8	Couriers and express delivery services	↑ 3.9
				Local messengers and local delivery	↑ 2.5
		Warehousing and storage	↑ 26.4	Warehousing and storage	↑ 26.4
		Publishing industries, except internet	↓ -1.4	Newspaper, book, and directory publishers	↑ 0.7
				Software publishers	↓ -4.4
		Motion picture and sound recording industries	↑ 14.5	Motion picture and video industries	↑ 14.7
				Sound recording industries	↑ 12.4
		Broadcasting, except internet	↓ -2.9	Radio and television broadcasting	↓ -6.6
				Cable and other subscription programming	↑ 2.0
				Wired telecommunications carriers	↓ -2.1



2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
Information	↓ -1.6	Telecommunications	↓ -5.2	Wireless telecommunications carriers	↓ -15.8
				Satellite telecommunications	↓ -18.9
				Other telecommunications	↑ 5.7
		Data processing, hosting and related services	↓ -2.7	Data processing, hosting and related services	↓ -2.7
Finance and insurance	↑ 0.7	Credit intermediation and related activities	↑ 1.9	Other information services	↑ 3.7
				Monetary authorities - central bank	↓ -15.5
				Depository credit intermediation	↓ -3.3
				Nondepository credit intermediation	↑ 5.3
		Securities, commodity contracts, investments	↑ 1.2	Activities related to credit intermediation	↑ 1.8
				Other financial investment activities	↑ 2.6
		Insurance carriers and related activities	↑ 1.2	Insurance carriers	↓ -4.7
				Insurance agencies and brokerages	↑ 7.4
Real estate and rental and leasing	↑ 2.3	Real estate	↑ 2.8	Insurance and employee benefit funds	↑ 26.5
				Other investment pools and funds	↑ 3.7
				Funds, trusts, and other financial vehicles	↑ 11.4
				Lessors of real estate	↑ 6.4
		Rental and leasing services	↑ 1.1	Offices of real estate agents and brokers	↓ -1.9
				Activities related to real estate	↑ 1.9
				Automotive equipment rental and leasing	↑ 3.6
				Consumer goods rental	↓ -5.2
Professional and technical services	↑ 1	Lessors of nonfinancial intangible assets	↑ 1.3	General rental centers	↓ -7.3
				Machinery and equipment rental and leasing	↑ 6.7
				Lessors of nonfinancial intangible assets	↑ 1.3
				Legal services	↓ -1.7
		Professional and technical services	↑ 1.0	Accounting and bookkeeping services	↑ 1.3
				Architectural and engineering services	↑ 0.0
				Specialized design services	↓ -8.8
				Computer systems design and related services	↑ 2.1
Administrative and waste services	↑ 2.9	Management of companies and enterprises	↓ -1.8	Management and technical consulting services	↑ 2.5
				Scientific research and development services	↑ 1.9
				Advertising, pr, and related services	↓ -1.8
				Other professional and technical services	↓ -0.5
		Administrative and support services	↑ 3.0	Management of companies and enterprises	↓ -1.8
				Office administrative services	↑ 6.2
				Facilities support services	↑ 22.5
				Employment services	↑ 2.8
Elementary and secondary schools	↑ 1.6	Waste management and remediation services	↑ 0.4	Business support services	↓ -2.5
				Travel arrangement and reservation services	↑ 3.0
				Investigation and security services	↑ 3.6
				Services to buildings and dwellings	↑ 2.5
		Waste collection	↑ 5.6	Other support services	↑ 2.1
				Waste treatment and disposal	↓ -15.2
				Remediation and other waste services	↑ 1.3
				Elementary and secondary schools	↑ 1.6

2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
Educational services	↑ 1.6	Educational services	↑ 1.6	Junior colleges	↑ 437.9
				Colleges and universities	↓ -0.4
				Business, computer and management training	↑ 19.7
				Technical and trade schools	↓ -5.9
				Other schools and instruction	↑ 4.3
				Educational support services	↑ 6.8
				Offices of physicians	↑ 1.8
Health care and social assistance	↑ 2.5	Ambulatory health care services	↑ 4.3	Offices of dentists	↑ 1.6
				Offices of other health practitioners	↑ 3.4
				Outpatient care centers	↑ 8.0
				Medical and diagnostic laboratories	↑ 8.9
				Home health care services	↑ 8.7
				Other ambulatory health care services	↑ 6.3
				General medical and surgical hospitals	↑ 1.3
		Hospitals	↑ 0.9	Psychiatric and substance abuse hospitals	↓ -4.4
				Other hospitals	↓ -3.4
				Nursing care facilities	↑ 0.8
		Nursing and residential care facilities	↑ 0.3	Residential mental health facilities	↓ -2.3
				Community care facilities for the elderly	↓ -0.1
				Other residential care facilities	↑ 11.5
				Individual and family services	↑ 2.3
		Social assistance	↑ 4.1	Emergency and other relief services	↑ 7.1
				Vocational rehabilitation services	↑ 2.7
				Child day care services	↑ 6.3
				Performing arts companies	↓ -0.2
Arts, entertainment, and recreation	↑ 3.3	Performing arts and spectator sports	↑ 1.2	Spectator sports	↑ 0.4
				Promoters of performing arts and sports	↑ 4.0
				Agents and managers for public figures	↓ -4.2
				Independent artists, writers, and performers	↑ 4.0
				Museums, historical sites, zoos, and parks	↑ 1.2
		Museums, historical sites, zoos, and parks	↑ 1.2	Museums, historical sites, zoos, and parks	↑ 1.2
				Amusement parks and arcades	↑ 9.6
				Gambling industries	↑ 18.2
				Other amusement and recreation industries	↑ 1.3
Accommodation and food services	↑ 2.7	Accommodation	↑ 1.9	Traveler accommodation	↑ 1.5
				Rv parks and recreational camps	↑ 8.0
				Rooming and boarding houses	↑ 21.8
		Food services and drinking places	↑ 2.8	Special food services	↑ 3.5
				Drinking places, alcoholic beverages	↓ -2.2
				Restaurants	↑ 2.9
				Automotive repair and maintenance	↑ 3.4
		Repair and maintenance	↑ 2.4	Electronic equipment repair and maintenance	↓ -4.9
				Commercial machinery repair and maintenance	↑ 2.7
				Household goods repair and maintenance	↓ -2.0
				Personal care services	↓ -1.1

2 Digit NAICS	% Change	3 Digit NAICS	% Change	4 Digit NAICS	% Change
Other services, except public administration	↑ 0.5	Personal and laundry services	↑ 0.6	Death care services	↑ 0.4
				Drycleaning and laundry services	↑ 1.5
				Other personal services	↑ 4.1
		Membership associations and organizations	↓ -1.5	Religious organizations	↑ 0.1
				Grantmaking and giving services	↓ -0.5
				Social advocacy organizations	↑ 2.3
				Civic and social organizations	↓ -0.6
				Professional and similar organizations	↓ -4.2
				Private households	↑ 1.0
		Private households	↑ 1.0		



## Appendix B – Share of GDP

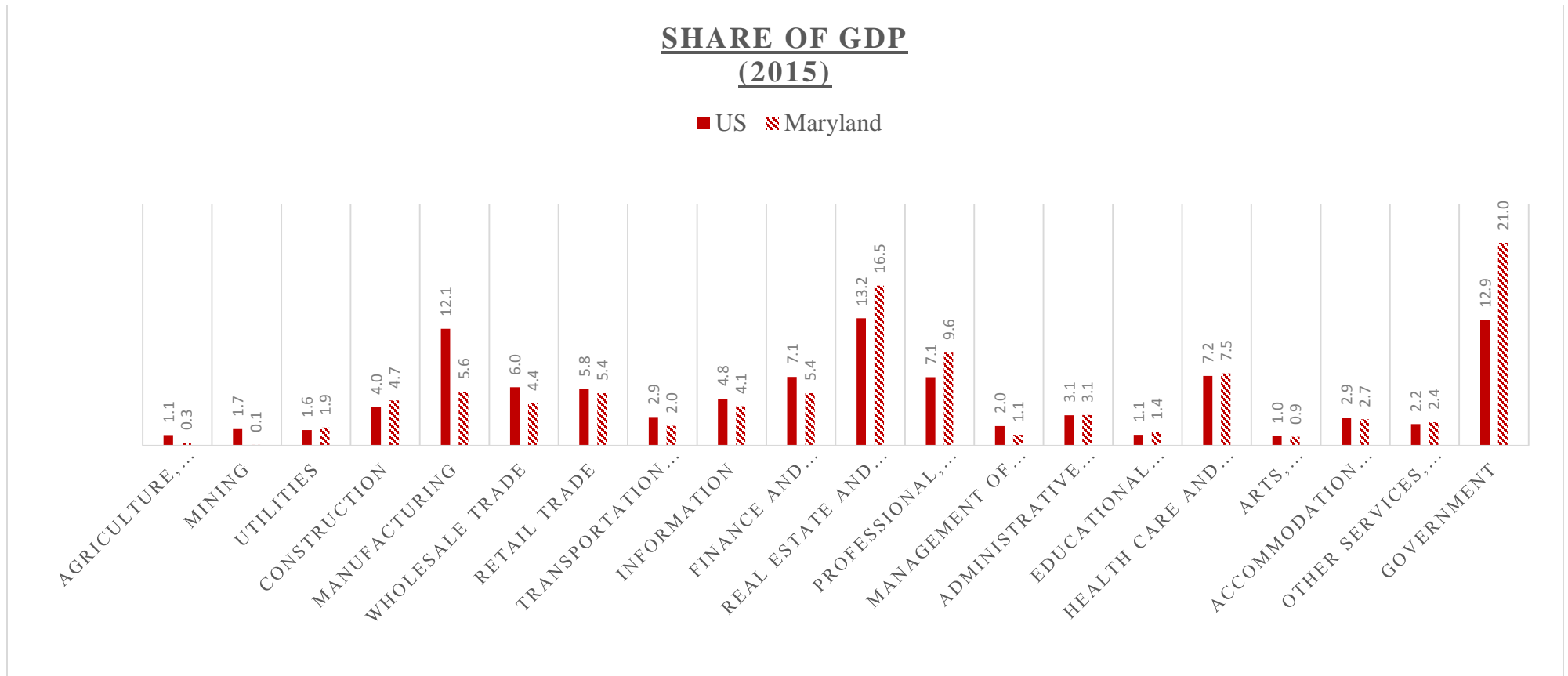


Figure 11 Share of GDP US vs. Maryland Source: Bureau of Economic Analysis

Full Industry Names in order left to right are:

- Agriculture, forestry, fishing, and hunting
- Mining
- Utilities
- Construction
- Manufacturing
- Wholesale trade
- Retail trade
- Transportation and warehousing
- Information
- Finance and insurance
- Real estate and rental and leasing
- Professional, scientific, and technical services
- Management of companies and enterprises
- Administrative and waste management services
- Education services
- Health care and social assistance
- Arts, entertainment, and recreation
- Accommodation and food services
- Other services, except government
- Government

## Appendix C – Top 50 Occupations of the future, by projected annual openings

Occupation	Annual Growth Openings	Mean Wage
Registered Nurses	1,640	\$ 73,198
Elementary School Teachers, Except Special Education	1,452	\$ 63,750
General and Operations Managers	877	\$ 131,069
Secondary School Teachers, Except Special and Career/Technical Education	832	\$ 66,085
Middle School Teachers, Except Special and Career/Technical Education	814	\$ 65,941
First-Line Supervisors of Office and Administrative Support Workers	651	\$ 59,434
Accountants and Auditors	628	\$ 80,575
Computer Systems Analysts	577	\$ 91,263
Software Developers, Systems Software	570	\$ 118,955
Sales Representatives, Services, All Other	479	\$ 66,259
Software Developers, Applications	472	\$ 108,187
Postsecondary Teachers, All Other	453	\$ 78,498
Market Research Analysts and Marketing Specialists	402	\$ 65,679
Computer User Support Specialists	385	\$ 54,757
Network and Computer Systems Administrators	361	\$ 100,629
Management Analysts	355	\$ 96,489
Business Operations Specialists, All Other	345	\$ 86,353
Instructional Coordinators	314	\$ 68,487
Educational, Guidance, School, and Vocational Counselors	282	\$ 62,396
Training and Development Specialists	253	\$ 64,904
Computer and Information Systems Managers	249	\$ 144,344
Medical and Health Services Managers	238	\$ 111,420
Education Administrators, Elementary and Secondary School	234	\$ 102,389
Financial Managers	216	\$ 135,857
First-Line Supervisors of Construction Trades and Extraction Workers	204	\$ 68,748
Physical Therapists	195	\$ 89,462
Special Education Teachers, Kindergarten and Elementary School	193	\$ 55,952
Financial Analysts	187	\$ 94,756
Information Security Analysts	183	\$ 102,952
Human Resources Specialists	182	\$ 71,298
Lawyers	168	\$ 121,530
Education Administrators, Postsecondary	165	\$ 119,677
Web Developers	158	\$ 76,163
Physicians and Surgeons, All Other	156	\$ 182,648
Logisticians	155	\$ 89,256
Personal Financial Advisors	154	\$ 102,139
Civil Engineers	154	\$ 85,583
Computer Network Architects	153	\$ 105,427
Electricians	150	\$ 54,868
Administrative Services Managers	145	\$ 103,839
Computer Network Support Specialists	144	\$ 70,651
Managers, All Other	144	\$ 119,978
Meeting, Convention, and Event Planners	135	\$ 57,789
Nursing Instructors and Teachers, Postsecondary	133	\$ 71,624
Kindergarten Teachers, Except Special Education	130	\$ 58,822

Occupation	Annual Growth Openings	Mean Wage
Life, Physical, and Social Science Technicians, All Other	130	\$ 58,808
Special Education Teachers, Secondary School	122	\$ 65,082
Medical Scientists, Except Epidemiologists	121	\$ 103,377
Physician Assistants	120	\$ 90,354
Education Administrators, All Other	120	\$ 95,904





Click to read Maryland Department of Labor's Mission & Vision

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